EXPLORING FINANCES, EMOTIONS, AND COUPLE RELATIONS USING THE FAMILY STRESS MODEL AND STRESS SPILLOVER MODEL

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CHAPTER I

INTRODUCTION

A couple's relationship satisfaction is important to families for a number of reasons, and decades of research have identified these reasons. For instance, studies show support for the idea that marital satisfaction relates to better emotional (Horwitz, White, & Howell-White, 1996) and financial health (Stack & Eshelman, 1998), better physical health (Waite & Lehrer, 2003), and lower risk for divorce (Kurdek, 1993) for couples. Given its broad influence in peoples' lives, it is then important to understand the underlying mechanisms that contribute to relationship satisfaction. Research from Fincham, Harold, and Gano-Phillips (2000) for example shows support for the proposal that attributions play a large role in relation to marital satisfaction. Gottman and his colleagues' research has shown support for communication patterns playing a salient role in predicting both marital satisfaction and stability (For example, see Gottman, Coan, Carrere, & Swanson, 1998), and research by scholars such as Kiecolt-Glaser and colleagues (Kiecolt-Glaser & Newton, 2001) has shown support for the role of human physiology in relation to marital satisfaction and health.

According to past research numerous relationships have also been found between stress and human functioning. For instance, studies such as the one by Maes et al. (1997) show that psychological stress can affect a person's immune system as the stress triggers immune responses similar to those found when the body contracts a virus. Other studies look at how stress relates to hormonal responses in the human body (Herbert & Cohen, 1993). Looking at stress from a different lens, other researchers have conducted studies on stressors and their relationships to socioemotional functioning, and numerous studies look at how this affects human development. For instance, a study by Compas, Orosan and Grant (1993) provides evidence showing that how an adolescent copes with the stress may influence the probably of problems such as depression. Other studies show that stress in early life may be related to both physical and emotional problems in later life. For instance, research by Bjőrntorp (2001) found a possible pathway linking stressors to problems with the HPA axis, which in turn may contribute to problems such as adulthood obesity and depression. Another study looked at how the stress related to disclosing one's HIV status increased the probability of depressive symptoms for men and women (Kalichman, DiMarco, Austin, Luke, & DiFonzo, 2003). Studies finding support for a relationship between stress and humans have taken place since the 14th century (For a more detailed review of its history see Lazarus, 1993).

More recently scholars have looked at how stress can relate to the interpersonal dynamics of couples, families, and their individual members (Boss, 2002). In fact, in a study by Tesser and Beach (1998) support was found for the proposal that as life stressors increased there were increases in negativity during couple interactions and a more negative perception of the relationship between partners. Other studies have looked at

how the stressor related to children coming into a family relate to declines in marital satisfaction. For instance, one study found that parents' marital dissatisfaction was related to the stress formed by role conflict and a reduction in freedom caused by the addition of children into the family (Twenge, Campbell, & Foster, 2003).

The Family Stress Model

The need for specific models to explain and isolate these multiple factors, mediators, and moderators was met, somewhat by the Family Stress Model developed by Conger and colleagues (Conger et al., 1990; Conger & Elder, 1994). Other models have been used to explain the relationship between family finances and overall emotional, social, and physical functioning, and this included the spillover model (Staines, 1980; Brock & Lawrence, 2008; Grzwacz & Marks, 2000; Doumas, Margolin, & John, 2003).

According to the Family Stress Model (Conger et al., 1990) poverty can cause financial strain which leads to problems in family processes. This is evident at the marital relationship level as well as through the observation of parenting outcomes (Simons et al., 1994). In their research called "The Iowa Youth and Families Project", Conger and Elder tested this Family Stress Model (1994) on a sample of rural families in the Midwest. They found that financial stressors relate to men's increased hostility and decreased warmth during partner interactions (Conger et al., 1994b). A replication study, with a sample of African Americans, using this model was conducted by Cutrona and colleagues (2002). The results showed that marital interactions were linked to financial strain. They found that the neighborhood context surrounding the family system contributed to overall levels of marital satisfaction (Cutrona et al.). These studies support

the idea that marital satisfaction is linked to both the macro and microcontext (Bradbury, Fincham, & Beach, 2000).

Stress Spillover Model

Another model, called the Stress Spillover Model, has also been used to explain the relationships between family finances and the emotional, social, and physical functioning of families (Staines, 1980; Brock & Lawrence, 2008; Grzywacz & Marks, 2000a; Doumas, Margolin, & John, 2003). The original premise of the Stress Spillover Model (Small & Riley, 1990) was that there needed to be a model used to facilitate the observation and explanation of how stressors in the workplace affect an individual's physical and emotional health outside of work. This model has been used to evaluate an individual's health in numerous studies, and some of these studies looked for a correlation between work-related stress and problems with employee's alcohol consumption and self-medication (Martin, 1990; Martin, Blum, & Roman, 1992). However, according to Brock and Lawrence (2008), general spillover has also been suggested as a model in all facets of social and psychological research. In fact they suggested that the Stress Spillover Model paints a clearer picture between numerous external factors and family functioning. These factors include nonnormative, economic, and work-related stressors, and how these stressors relate to family processes (Brock & Lawrence). In essence, it appears as though the Stress Spillover Model could be used to explain how processes in the macrocontext spillover into processes in the microcontext (Bradbury, Fincham, & Beach, 2000), and it is important to note that this relationship is bidirectional (Doumas et al., 2003).

Other research conducted by Kinnunen and Feldt (2004) found support for the Stress Spillover Model (Brock & Lawrence, 2008) showing that poverty was linked to individual economic strain, which led to higher levels of individual emotional distress which was linked to poorer marital adjustment among couples in Finland. A study by Krokoff, Gottman, and Roy (1988) found that the occupational status (blue-collar versus white-collar workers) of husbands related to the amount of negative affect they displayed when interacting with their partners. The results of this study provide support for the Stress Spillover Model proposed by Stains (1980) regarding work and family functioning. Emotional distress and affect felt outside of the home is related to problems in marital interactions (Stains). Similar results supporting the need to include the study of affect in interactions is found in the study by Johnson and colleagues (2005). They found evidence proposing the idea that positive and negative affect can hold more power in predicting couple satisfaction even beyond communication skills (Johnson et al.). There is a need to further the study of affect in order to understand more of the underlying processes behind the relationships between finances, stress, and marital satisfaction.

Purpose

The overall purpose of the current study is to identify if a relationship exists between a couple's SES and their affective experiences while communicating, and it is also designed to identify evidence supporting the partial mediation of this relationship explained by the current global level of stress each partner reports. The hypotheses surrounding this research question are that a negative relationship would exist between a couple's SES and various measures of positive and negative affect displayed during interactions, and that stress would partially mediate this relationship.

CHAPTER II

REVIEW OF LITERATURE

Stress

Boss describes family stress as pressure put on the family unit that disturbs the "family's steady state" (2002, p. 61). She goes on to define this stress as problematic in circumstances where it causes restrictions in the functionality for the family and its members (Boss). Busby, Gardner, and Taniguchi (2005) provide more support for the salience of stress and family processes when they included family stressors in their parachute model. They found evidence supporting that stressors reported in a family of origin can contribute to attitudes of adult children regarding their own romantic relationships. Specifically, as stressors in the family of origin increased, adult children's perception of that influence on beliefs about relationships increased (Busby et al.). Also, results from a study by Vannoy and Cubbins (2001) suggest, families who have less economic stress have a better opportunity to focus on relationships.

Murry et al. (2008) describes some of the findings regarding correlates between a family's socioeconomic status, and the numerous stressors that diminish marital relationship quality and psychological functioning. More specifically, the study found negative relationships between family socioeconomic status and negative life events, general distress, and anxious arousal. This reinforces the previous findings regarding relationships between socioeconomic status and mental health (Murry et al). In their study looking at attachment and marital satisfaction, Meyers and Landsberger (2002) found evidence supporting the proposition that psychological distress contributes to marital dissatisfaction mediating the relationship between secure attachment and marital satisfaction.

Another study found support for the idea that newlyweds in particular may need positive social supportive behaviors from a partner to lower each partner's stress if and when interactions of conflict occur in a marriage (Heffner, Kiecolt-Glaser, Loving, Glaser, & Malarkey, 2004), and the negative affect caused by stress can also affect relationship satisfaction specifically during couple interactions (Pasch, Bradbury, & Davila, 1997). Another study by Repetti shows that as a partner's daily workload increases so do frequencies of social withdrawal (Repetti, 1989), and this social withdrawal is described by Repetti as a buffer to the stressors a partner feels outside of the home. The idea that external stressors affect internal processes lends further support to the idea that factors such as work, stress, and finances can affect family interactions. A study of blue-collar workers and their family processes, by Krokoff, Gottman, and Roy (1988), shows further support for this idea as it explains how warmth decreases and hostility increases in relation to job satisfaction.

Finances and Family Processes

A study conducted by Dakin and Wampler (2008) found a difference in emotional well-being and self-reports of marital quality when comparing groups of couples based on their socioeconomic status. According to the authors, since these couples were already receiving treatment, it was no surprise that the profile of psychological distress for both samples were already in the clinical range, but those couples in the low-income group reported even higher levels of distress (Dakin & Wampler). Although both income groups reported low satisfaction in their marriage, couples in the low-income group reported even lower levels of relationship satisfaction, and the authors stated that these levels were comparable to the satisfaction levels of divorced individuals (Dakin & Wampler). The difference in relationship satisfaction between the low-income couples and the middle-income couples provides support for the idea that financial strain plays a salient role in relationship satisfaction.

The question remains as to how marital satisfaction should be conceptualized. When assessing relationship satisfaction, Bradbury and colleagues (2000) suggest not only looking for the absence of dissatisfaction, but also looking for different unique factors that are considered in a satisfied relationship. Marital satisfaction can be relative to the context of measured satisfaction levels, and this context can be linked to time (Fincham et al.), neighborhood factors (Cutrona, Russell, Abraham, Gardner, Melby, Bryant, & Conger, 2003), or socioeconomic circumstances (Krokoff et al., 1988; Conger et al., 1990).

Financial circumstances are factors to consider while looking at marital satisfaction. According to the US census bureau the official poverty rate for the United

States in 2007 was 12.5 percent, and the number of people living in poverty climbed from 36.5 million in 2006 to 37.3 million in 2007 (Poverty: 2007 Highlights). Income is an important contributing factor for the outcome of children early in life especially when the children are living in poverty (Mistry, Biesanz, Taylor, Burchinal, & Cox, 2004). Economic pressure also affects how children are disciplined (Simons, Whitbeck, Melby, & Wu, 1994). Specifically, Simons and colleagues found that economic pressure significantly correlated to harsher "explosive" discipline. A study by Harding (2003) found evidence that income contributed to problems for children during the adolescent years, including issues regarding pregnancy and dropout rates.

Also relevant are the parenting behaviors that explain many of these childhood outcomes (Gutman, McLoyd, & Tokoya, 2005; Davies & Cummings, 1994). Poverty affects families of all nationalities from Caucasian families in the rural Midwest, (Conger et al., 1990; Conger, Ge, & Lorenz, 1994) to African American families in urban cities, (Coley & Chase-Lansdale, 2000; Cutrona et al., 2003; Gutman et al; Pittman & Chase-Lansdale, 2001), and Latino families throughout the country including southern California (Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003). The need for specific models to explain and isolate multiple factors, mediators, and moderators has been met the Family Stress Model developed by Conger and colleagues (1990).

The Family Stress Model

The general idea of the Family Stress Model proposed by Conger and colleagues (1990) was that economic hardship related to economic strain felt by each partner, which led to decreases in each partner's emotional health which then predicts increases in spousal hostility along with decreased spousal warmth during couple interactions. The

Family Stress Model goes beyond the concept of marital processes. It has also been used to explain the relationship between a family's financial stress and child outcomes (Simons et al., 1994). In their study of Iowa families, Conger et al. (1994) tested parts of the Family Stress Model on a sample of families located in the Midwestern United States. Part of that model included the proposition that economic pressure has an indirect effect on marital quality that is explained by each partner's emotional state in the form of warmth or hostility. These pathways using emotional states as a mediator were also proposed in the work of Kinnunen and Feldt (2004), Coley and Chase-Lansdale (2000), as well as Pittman and Chase Lansdale (2001).

In the research conducted by Kinnunen and Feldt (2004) support for both the Family Stress Model (Conger et al., 1990) as well as the Stress Spillover Model (Doumas, Margolin, & John, 2003) was found showing that poverty was linked to individual economic strain, which led to higher levels of individual emotional distress, which was linked to poorer marital adjustment among couples in Finland. In another study by Robila and Krishnakumar (2005) a link was found between economic strain felt by women, and this strain, in turn, related to an overall increase in conflict between partners, similar to the findings of Conger and colleagues (Conger et al., 1994).

In their work looking at neighborhood contexts and financial strain, Cutrona and colleagues (2003) found support for the Family Stress Model. Specifically they looked at how financial strain was predictive of lower levels of self-reported marital quality. Unlike the Iowa study which tested aspects of the Family Stress Model (Conger et al.) on a predominantly Caucasian sample of families, the investigators in this study used an African American sample. They tested and found support for the hypothesis that a

married couple experiencing financial strain while at the same time living in a neighborhood known for its economic disadvantage would show less warmth and more hostility during marital interactions between partners (Cutrona et al., 2003).

Further use of this model was made to explain how stressors outside of the family interact with parenting styles. In fact, Simons et al. (1994) found a link between economic pressure felt by parents and their harsh and explosive parenting styles. They also found that the link between finances and parenting was partially mediated by husband-wife interactions (Simons et al.) In fact, as husbands and wives felt the stress caused by economic pressure, evidence was found supporting the proposal that some of the hostility they shared between them spilled over into how they interacted with the children (Simons et al.).

Providing further evidence of the usefulness of the Family Stress Model's application to parenting outcomes, another study looked at African-American adolescent females in impoverished areas of Chicago, Illinois (Coley & Chase-Lansdale, 2000). In this study the investigators found that financial strain felt by mothers was linked to their daughters' negative outcomes in the forms of poor academic performances as well as increases in sexual experiences. This study also found that welfare assistance received by mothers correlated with more positive child outcomes in the form of higher academic scores (Coley & Chase-Lansdale). In other words, if the external stressor of financial strain was reduced the child outcome of these families became more positive. Explaining why these child-outcomes may take place in homes with lower incomes, a study conducted by Pittman and Chase-Lansdale (2001) found that parenting styles also correlated with child outcome when looking at this same sample, and they specifically

found evidence supporting a link between mothers' disengaged parenting style and children's negative outcomes.

In fact, in another effort to extend the model, Conger et al. (2002) tested the part of The Family Stress Model on samples of African American families in Iowa and Georgia. In this study, similar to the research conducted by Simons et al. in 1994, they found that outside economic pressure related to emotional distress in the lives of the parent-figures which then related to problems in the relationship between the caregivers and the children (Conger et al., 2002). This study also found a relationship between these problems and child outcome, including higher internalizing and externalizing problems (Conger et al.). This study provided more support for the application of The Family Stress Model in explaining and predicting problems in multiple populations beyond the original scope of study that included Caucasian families of the Midwestern United States (Simons et al., 1994; Conger et al., 1990; Conger et al., 1994).

The Stress Spillover Model

The Stress Spillover Model has been used to predict an individual's health based on work-related stress (Martin, 1990; Martin, Blum, & Roman, 1992). In essence, many times, husbands and wives are so stressed from processes occurring in their out-of-family context, to the point that their stress spills over into the family context. In fact, in a study looking at dual earner couples, supported this model as it found that each partner's work demands related to their exhaustion, which in turn related negatively to each partner's level of life satisfaction (Demerouti, Bakker, & Schaufeli, 2005).

A study of newlyweds, conducted by Karney, Story, and Bradbury (2005) provides even more evidence supporting the spillover model as it shows the general idea

that chronic stress affects the processes which are predictive of marital satisfaction. In fact, the results suggest that enhancing outside resources for families who do not have them, may create an increase in levels of marital satisfaction specifically in regions of the United States where divorce rates are high and marital satisfaction is low (Karney et al.). While looking specifically at how stress spills over into the marital relationship, Neff and Karney (2007) found that when wives are experiencing high levels of external stress both partners' levels of happiness in the marriage decrease. However, if only the husband experiences high levels of stress he remains the only partner unhappy in this relationship (Neff & Karney). This provides evidence supporting the idea that stress spillover may be dependent on whether or not the wife feels stress from the macrocontext (Bradbury et al., 2000). Neff and Karney also suggest that this study provides support for the salience of looking at relationship satisfaction from a dyadic level. It is important to note the gender differences in how stress spillover affects couples and their reported levels of relationship satisfaction (Neff & Karney).

In their study looking at the Stress Spillover Model in relation to partners' behaviors, Doumas, Margolin, and John (2003) used daily repeated measures to identify how work stressors related to the marital relationship. They found support for the hypothesized relationship between each partner's healthy behaviors, such as less work and more relaxation, and their level of positive interaction (Doumas et al.). Some preliminary evidence of interdependence between these individual behaviors and partner behaviors were also found in this study. In other words, perhaps there are factors during couple interactions that contribute to behaviors outside of the home such as "taking a bad mood to work following a fight with a spouse." Further longitudinal designs using the

Stress Spillover Model may find more information regarding these transactional relationships.

Many studies have also found evidence to support this model including a study by Grzywacz and Marks (2000) that showed a significant amount of work stress spills over into family life on the individual level both in the form of increased negative feelings as well as in the form of reduced positive feelings. When looking at couple relationships one of the most recent findings has been the discovery of how salient affect becomes, and many scholars have found evidence showing that negative affect is the most reliable variable in predicting marital satisfaction (Griffin 1993, 2003; Gardner and Wampler, 2008).

Affect and Couples

As previously stated, Krokoff et al. (1988) found that husbands with blue-collar professions displayed higher levels of negative affect during interactions with their partners when compared to white-collar husbands, and they found that increases in job distress explained this relationship. This study by Krokoff and colleagues introduced the idea that affect should be studied in relation to external stressors such as a couple's socioeconomic status. However the question remains: "Why is it so pertinent to identify how each partner feels about conversations with the other?"

There are various measures of affect including self-report of continuous affect measures, such as ones proposed by Gottman and colleagues (For instance see Gottman & Notarius, 2000), as well as observational coding of affect such as the Specific Affect Coding System (SPAFF) (Gottman & Krokoff, 1989), which has also been used in couple interactions. The cascade model proposed by Gottman (1993) suggests visits to negative

affect can predict problems later on between partners. Gottman also suggests that certain negative interactions can later cascade all the way to the point of divorce, and this is where he mentions his “Four Horsemen of the Apocalypse” (p. 62.). The theory is that certain acts of negativity, including criticism, defensiveness, stonewalling, and contempt can lead to marital dissolution as partners maintain these patterns of unhealthy communication (Gottman).

To build on this line of research, Johnson et al. (2005) published a study where they discussed how problem solving skills and affective expressions related to marital satisfaction. Specifically, they found evidence suggesting that a couple’s high level of positive communication skills during marital interactions is especially valuable when positive affect is displayed (Johnson et al.). In other words, the longitudinal data shows that these couples were higher in satisfaction when they showed high levels of positivity, especially when combined with high positive communication skills in interactions, but that their relationship satisfaction had the probability of still being high if couples showed high positivity during conversations even when poor communication skills were used (Johnson et al.). In fact, this positive affect could compensate for those partners who lack social skills and who may stumble upon their words during interactions. Another earlier study by Johnson (2002) identified that negative affect in the form of anger and contempt was related to decreases in marital satisfaction while humor and affection were linked to higher levels of marital satisfaction. Thus, these studies reinforce the need to show positivity while interacting with spouses, but gender differences exist as well.

In fact, in one study looking at two samples of Belgian couples the researchers looked for gender differences in relation to demand withdraw patterns, and they observed

that a partner's emotional arousal related to each partner's gender (Verhofstadt, Buysse, Ickes, De Clercq, & Peene, 2005). They also took these observations a step further and looked at how emotional arousal related to negative feelings based on gender, and the study looked at the complimentary patterns of emotion regulation and how each partner perceives these spikes of emotions that occur during a conflict interaction with the other partner (Verhofstadt et al.). In essence this study shows how affect is related to more than just external factors outside of the home, but also to differences based on gender.

One of the purposes of evaluating these two samples of Belgian couples was to find out if there was evidence supporting the hypothesized impact of gender and conflict structure on a partner's "emotional arousal and negative affect" (Verhofstadt et al., 2005, p. 454). In essence, they were observing if there was evidence supporting that, in general, husbands feel less emotional arousal when they are on the withdraw side of an argument than when they are on the demand side of an argument, and the results support this (Verhofstadt et al.). Also there was evidence showing that women in this study felt more emotionally aroused and higher levels of negative affect while acting as "withdrawers" in the context of their husband's demanding role (Verhofstadt et al.). In essence, Verhofstadt and colleagues found that both men and women experience strong emotions during the demand and withdrawal process, and that both genders report feeling bad about these emotions, but the article provides evidence supporting the idea that women invest more emotions into their romantic relationships when compared to their male counterparts.

The above study provides even further evidence that there are gender differences in how each partner feels during a conflict interaction, and this becomes salient as other

studies found that perceptual biases can be related to marital stability and divorce (Carrere, Buehlman, Gottman, Coan, & Ruckstuhl, 2000). In a longitudinal study by Carrere et al. (2000), support was found for the idea that partner's perception of the negative and positive aspects of marriage shapes the future of that marriage. In other words one partner, through continued negative experiences with an opposite partner, may begin to see that opposite partner's neutral behaviors in a more negative light (Neff & Karney, 2007; Gottman, 1993).

Sometimes there are individuals who find themselves' feeling negativity during conversations, but they struggle to leave the state of negative affect during interactions especially when they are distressed (Griffin, 1993; Gottman, 1993). In an effort to identify and isolate how this effort to exit a negative state takes place, Gottman stated that couples express the most negativity during the middle part of high conflict conversations (1998), and he says that this is when a partner will try to repair the interaction by using phrases that diffuse the feelings of intense negativity. When couples are in a satisfied relationship this repair attempt may be successful, but if it's in a context where satisfaction is low, the conversation gets worse as the other partner only focuses on the negative tone of this repair attempt, and he or she then reciprocates the negativity right back at the opposite partner (Gottman, 1993). Repeated patterns of such interactions lead to more negative attributions and less positive ones, and these observed patterns of couple interactions provide further evidence supporting Gottman's previously mentioned cascade model (Gottman, 1993).

Such negative affect and interactions can lead to many other problems including marital dissolution (Gottman, 1993) as well as lowered relationship satisfaction

(Fincham, Harold, & Gano-Phillips, 2000), and so it has been the focus for family scientists to identify, conceptualize, and measure states of emotion felt by partners. Conducting some of the earliest research on affect and marriage, Gottman and Levenson (1985) looked at self-report affect measures compared with observed measures of affect, and they found a significant correlation between the two indices. The measures were taken using a "Video Recall" procedure, as the couples' interactions were recorded, and then they were able to independently rate how he or she was feeling (more bad or more good) during the conversation while they watched it (Gottman & Levenson, 1985). This study provided support for the use of self-reported affect as a valid tool in measuring the emotions couples feel while interacting (Gottman & Levenson).

In his 1998 article Gottman used each partner's expressions of affect as parts of his theory of marital dissolution. Specifically, he found that measures of affect were predictive of marital outcomes, but the paucity remains as to what factors contribute to or moderate those expressions of affect during couple interactions. Including affect into the Family Stress Model (Conger et al.) paves the way for research questions such as whether or not a couple's socioeconomic status predicts the amount of affect displayed by partners during conflict interactions. This theoretical back tracking of the pathway can be useful for clinicians as well, because they can identify variables related to emotional states including those in the micro and macrocontext (Bradbury et al., 2000).

Self-Reported Continuous Affect and State Space Grids

Gottman and Levenson (1985) used a measure based on continuous self-report of emotions while studying a sample of 30 married couples. The couples interacted in situations of both low and high conflict, and a few days later, they were instructed to

rate their emotions felt during the conversation continuously using a dial (Gottman & Levenson). The results showed a number of correlations including a significant relationship between the couples self-reported ratings of affect and observer coding of affect (1985). Future directions of research include the use of State Space Grids (Lewis et al.) in order to gain more specific data regarding visits to emotional states during interactions, and that includes incorporating this construct into the Family Stress Model (Conger et al., 1990) as well as the Stress Spillover Model (Doumas et al., 2003).

In their study looking at a relationship between each partners' warmth and hostility and their relationship stability, Matthews, Conger, and Wickrama (1996) used an index of observed and partner perceived warmth and hostility, and Conger and colleagues have used similar measures as well (See Conger et al., 2002). One use for the state space grids (Lewis et al.) incorporated into the Family Stress Model (Conger et al., 1990) would be to further clarify the concepts of warmth and hostility used in the studies by Conger and colleagues (Conger et al., 1994; Simons et al., 1994) by measuring different variables of self-reported affect. According to Gardner and Wampler (2008), the state space grids (SSGs) provide a graphical display providing a means to plot different states of a dyad over a period of time

Using state space grids as a means of reporting and analyzing emotions during interactions, Hollenstein and Lewis (2006) studied mothers and teenage daughters who were observed in a negative and positive discussion. The measures of affect negativity and positivity were recorded in real time by trained observers watching the video tape of the interactions. Using the state space grids, the mother's emotion was recorded on the x-axis while the daughters were recorded on the y-axis in this study (Hollenstein & Lewis).

This specific study looked at flexibility of emotions based on the negativity of the conversation using a measure of dispersion (how spread out was the behavior range between cells during the interaction) and a measure of transition (how many changes took place between cells in the state space grids during both interactions). The study found evidence supporting the proposition that the negative conversations restrict flexibility regarding behavior and emotions (Hollenstein & Lewis, 2006).

Conclusions from the Review of Literature

Certainly the salience of combining the observations of both external and internal factors related to marital outcomes has been emphasized, and the use of Conger's Family Stress Model (Conger et al., 1990) coupled with the use of a family stress spillover model (Staines, 1980) helps to organize and explain the processes where these factors relate. According to both models, stressors, identified as part of the macrocontext (Bradbury et al., 2000) relate to more negative interactions in the microcontext. The time has come to identify more of the underlying processes by which these variables correlate using self-reported continuous affect recorded through the use of state space grids (Lewis, Lamey, & Douglas, 1999; Hollenstein, 2007). Based on the Family Stress Model proposed by Conger and colleagues (1990) along with the Stress Spillover model, it was hypothesized that a couple's economic strain would positively relate to more negative affect and less positive affect when couples communicate. Also, couple affect flexibility would be restricted as economic strain increases.

Hypotheses

The hypotheses were designed to predict different levels of affective flexibility and negativity based on the couple's socioeconomic status (SES). The couple SES was

indicated by a survey question that asks which answer is closest to the participant's yearly, household income. The affect variables were measured for an interaction period when the couples are invited to transition from a conversation about a time when each partner felt either hurt and offended by the other (pre) to a conversation about when they felt cared-for and/or loved by the other partner (post). Each hypothesis was tested with associational inferential statistics for a relationship between the couples' socioeconomic status and individual self reported level of global stress, and the measures of affect previously mentioned. Associational inferential statistics were also used to identify if each individual self reported level of global stress would partially explain the relationship between the couples' socioeconomic status and the couples' measures of affect.

Flexibility Hypotheses: As Gottman (1993) described some distressed individuals as unable to leave a negative state once they have entered it, it was hypothesized that after having a negative conversation, couples with lower incomes would struggle to leave these negative states.

Hypothesis 1: Couples' income level will relate negatively to their mean durations-per-event in the pre discussion, and negatively to their mean durations-per-event in post discussions.

Hypothesis 2: Couples' income level will relate positively to their dispersion during the pre perturbation discussion and will relate positively to their amount dispersion in the post perturbations discussion.

Hypothesis 3: Couples' income level will relate positively to their transitions-per-minute in the pre perturbation discussion, and will relate positively to their transitions-per-minute in the post perturbation discussion.

Negativity Hypotheses: Just as Krokoff et al. (1988) found support for more negative affect displayed based on a partners occupational status (blue-collar husband showing more negative affect compared to white-collar), it was hypothesized that negativity would be higher when the incomes of couples are lower.

Hypothesis 1: An increase in couples' income level will predict decreases in negative durations during both the pre and post perturbation discussions.

Hypothesis 2: The higher a couples' income level the less visits to negative affect during both the pre and post perturbation discussions.

Stress Mediation Hypothesis: Conger's numerous studies (See Conger et al., 1990 and Conger et al., 1994) found a relationship between economic strain and stress felt by partners. Also, Doumas, Margolin, and John (2003) found support for a relationship between partners' decrease in time at work and their increases in the levels of positive interaction (Doumas et al.). Therefore it was expected that as couple income decreased, couple stress would increase, and as stress increased negative interactions would also increase. Therefore it was also predicted that stress would mediate the relationship between the couples' income levels and the affect reported during interactions.

Hypothesis 1: The level of each partner's overall stress will mediate the relationship between the couple's socioeconomic status and the affect variables listed in the above hypotheses.

CHAPTER III

METHODOLOGY

Sample

The sample consisted of 41 couples recruited as a part of a larger federally funded study. Of the couples studied, 52 of the partners were Caucasian, 13 were African American or Black, 11 were American Indian or Alaska Native, 5 were Hispanic or Latino, and 1 partner was Asian or Pacific Islander. Close to half of participants had children, and education levels ranged from less than high school (7%), high school graduate (15%), some college (39%), trade/technical/vocational (7%), college graduate (20%), and post graduate work/degree (12%). Regarding income levels 32% reported family incomes of less than $15,000, 27% between $15,000 and $35,000, 22% between $35,000 and $55,000, 7% between $55,000 and $75,000, 2% above $75,000, and 10% reported not knowing their income level.

Measures

Current Global Stress Level. To assess each partner's current global level of stress the Derogatis Stress Profile (Derogatis, 2000) was used. This is a 77-item self-administered questionnaire with 11 primary dimensions that are under the three domains (Environmental Factors, Personality Mediators, and Emotional Responses) that was assessed to describe an individual's current level of total stress.

A total stress score for each partner was computed from this measurement using a T-score transformation (DeRogatis, 2000) that sums up all three domains of the questionnaire. Studies of reliability have been conducted on this construct revealing for internal consistency a Cronbach's alpha scores above 0.80 for each of the three domains the questionnaire covers and a range of 0.79 to 0.93 for all eleven of the dimensions under these domains (Derogatis). Also, another study revealed the test-retest reliability index for the Total Stress Score to be 0.90 (Derogatis & Fleming, 1997, p. 126), but the sample size of 34 should be acknowledged as relatively small. The validity of this instrument is supported as Dobkin, Pihl, and Breault (1991), found that the total stress score had significant correlations with both the Daily Hassles Scale and the Life Experiences Survey. Each individual's total stress score was used to assess the current overall stress felt by each individual.

Socioeconomic Status. The couple's socioeconomic status was identified using one survey question that asks which answer is closest to the participant's yearly, household income (See Figure 1). The options were categorized as less than $15,000 per year, between $15,000 and $35,000, between $35,000 and $55,000, between $55,000 and

$75,000, more than $75,000, and an answer to select if the participant does not know the household income.

Self-reported Continuous Affect. In the current study a continuous-response measure was used along with a video recall procedure to gather the continuous self-report data on each partner's affective experience (Biocca, David, & West, 1994; also see Griffin, 1993, & Gardner & Wampler, 2008). The software for this study continuously records changes in positivity and negativity. This rating was created on a computer showing a colored, 9-point vertical scale, and each point was identified by boxes that changed color when highlighted by the cursor key. The four upper boxes, which became progressively wider in width as they moved higher, were colored blue when highlighted, and labeled "positive." The lower four boxes, which became progressively wider as they moved lower, were colored red when highlighted, and labeled "negative." The middle box on the scale was the most narrow in width, was colored grey when highlighted, and represented "neutral." Each partner was asked to rate how they felt during the conversation by sliding the mouse up or down based on whether they felt more negative or positive.

Procedures

Couples participated in this study as part of a larger federally funded project. For the purpose of this study couple's completed several questionnaires, a video recorded interaction task, and a video recall procedure. Prior to the video taped conversation partners were individually interviewed and ask to recall a time when they felt either hurt or offended by their partner. During the video recorded interaction the couples discussed this time when they felt hurt our offended for seven minutes (pre) and were then invited

to transition to a conversation about when they felt cared-for and/or loved by the other partner for five minutes (post). After a "relax" period, the couples were then brought into a room to rate how positively or negatively they felt during the interaction using the self-reported continuous affect measure.

With the self-reported continuous rating of spouses' negativity or positivity, variables of affect were created. Affect flexibility had three different measures of flexibility including the range of emotional responses (dispersion), the changes in emotional reaction (transitions per minute), and the persistence of a specific emotional response (mean durations-per-event, Hollenstein, 2005). Regarding affect negativity, this study looked at two different measures derived from the State Space Grids (SSG), and these included the number of visits a couple makes to a "negative region" (negative visits) and the amount of time the couple spends in the negative region (negative duration) (Hollenstein, 2005). The affect measures were attained using a SSG produced with the Gridware software (Lewis, Lamey, & Douglas, 1999). For further clarification see Table 1, showing the Hypotheses, and Figure 2 showing an illustration of what each SSG measured.

Plan of Analysis

The plan of analysis was to identify as the literature suggests if there was an association between couples' income level and their affect during interactions. The second part of the plan of analysis was to test whether or not this association was mediated by the current global stress each partner feels. The steps for testing the following hypotheses (Flexibility, Negativity, and Mediation) were as follows. There was a regression test run to identify if the predictor variable, couples' income levels, predicted

the outcome variable, couple affect. Once these relationships were identified, another test was to be run regressing the mediator, current global stress levels, on the predictor variable, couples' income levels. The next step was to run a test regressing couple affect on the proposed mediator. If these relationships were all found to be significant, then the final test was to see if the relationship between the predictor variable, couples' income levels, and the outcome variable, couple affect was reduced when accounting for the mediator. If the relationship between the predictor and outcome variables was reduced and no longer significant, then evidence for partial mediation would have been supported (Barron & Kenny, 1986).

CHAPTER IV

FINDINGS

A brief description of the means, range, and standard deviation for each of couple and partner variables are found in Table 2. One interesting trend observed from this table shows that the means transitions-per-minute were higher during the negative discussion when compared to the positive. Perhaps this reflects partners' attempts to escape the negative affect state they find themselves in during the negative conversation. It is also interesting to point out that the one can identify the positive conversation from the negative conversation based on the means showing visits to negativity during both interactions as well as the means showing how long the couples stayed in the negative region. The negative region is the area highlighted in yellow on the state space grid (See Figure 2).

After running a test of regression between couple income and the variables measuring couple affect, there were no significant relationships found except for one showing the opposite result than what was expected for one of the affect negativity hypotheses (See Table 1). Specifically it was hypothesized that as couple income increased there would be less visits to negative affect both during the pre and post perturbation discussions. However, a positive significant relationship was found between couple income and the recorded number of visits the couple made to the negative region during the positive conversation ($F=4.239$, $p < .05$). Thus, as couple income increases this study found that visits to negativity made during the post conversation increases as well.

No mediational tests were run except to test for global stress as a mediator for the one significant relationship found, and there was no significant relationship found between partner reported global stress and number of visits to the negative region during the positive conversation. Hence, it was found that the positive relationship between couple income and visits to negativity was not explained by the amount of partner reported global stress felt.

A one Analysis of Variance (ANOVA) test was also run to evaluate if there was a significant difference of the means on negative affect, separating high-income couples from low-income couples. In order to run the ANOVA test, the income variable was dichotomized into low-income (Group 1), which included those who made $35,000 or less annually, and high-income (Group 2), which included those who made more than $35,000 annually. Of the sample of 41, 26 couples were into the low-income group while 15 couples were in the high-income group. After running ANOVA only one significant

finding came through showing a difference, and only one significant difference between groups was found. A significant difference was found between high-income couples and low-income couples regarding the number of visits made to the negative region during the second conversation. (F=4.795, p=.034).

Given that the hypotheses tested were not found to be supported, exploratory analyses were run between the variables of global stress and the five variables of couple affect. Running regression tests between partner reported global stress and couple affect, one significant relationship was found: The female reported global stress level is predictive of negative duration post (F = 5.426, p =.026). Meaning that the amount of time a couple spends in a negative state increases relative to the female partner's level of global stress (See Figure 3).

CHAPTER V

CONCLUSION

The Family Stress Model proposed by Conger and colleagues (1990) paints a clearer picture of how financial strains can predict problems in marriage and family relationships. To expect couple income to relate to couple affect during interactions leaves out potential multiple moderators, and these third variables could be reducing, or increasing, the likelihood of finding such a predictive relationship. Using the available data for income, stress, and affect, a significant relationship was found, which was unexpected based on the Family Stress Model and the literature leading up to the negativity hypotheses. Potential reasons for this seemingly counterintuitive result will be discussed. Gender differences regarding global stress were also found to predict affect negativity during couple conversations, and further exploration as to why this may be the case is also discussed.

Income's Positive Relationship with Couple Negativity

The evidence supports the idea that as couple income increases visits to negative affect go up during the positive communication period. Considering the fact that the couple just had a negative conversation prior to the positive one, this supports the idea that as the couples are in the negative state, they are either less able to escape this negativity or more prone to returning to it (Gottman, 1993). However, this relationship gets more complex as the variable income predicted this increase of visits to negativity. This may seem counterintuitive to the Family Stress Model proposed by Conger and colleagues (1990), because finances were found to be predictive of warmth and hostility between partners during couple interaction. However, the inclusion of the Stress Spillover Model may help explain this finding as it looks at other intervening variables that paint a clearer picture of work and family interactions.

As was stated before, a mediational test was run for the one significant relationship found between couple income and visits to negativity during the post conversation, and there was no significant relationship found between partner-reported global stress and number of visits to the negative region during the positive conversation. This indicates that global stress does not explain the relationship between family income and visits to negativity, but could another variable be mediating or moderating the relationship between income and couple affect during interactions? In his study looking at negative affect during marital interactions, Griffin (1993) found evidence showing support for the idea that as a wife's education level increases so does her tendency to stay in negative affect longer. This has been suggested to be because the wife has more power in the relationship when she is more educated. This idea is also supported by the

exploratory analyses looking at gender differences. So surely there could be other variables beyond income that contribute to the probability of a couple visiting negative states more during interactions.

In the Stress Spillover Model work-stress often spills over into family interactions (Brock and Lawrence, 2008). Increases in income may indicate longer durations of time spent at work which could then indicate more work specific stress. This work specific stress, which may not be indicated by the current global stress level, may still spill over into the family environment. The Derogatis Stress Profile (Derogatis, 2000) covers three domains of stress, including an environmental domain, and under this domain, a variable regarding vocational stress is measured. Further analyses are needed looking at vocational satisfaction levels to identify if specific work based stress moderates the relationship between income and visits to negativity made by couples during interactions.

Gender Differences and Negative Duration

Support in the exploratory analyses was found for a difference based on gender regarding the relationship between global stress and the length of time spent in negativity during a positive conversation. The evidence showed that couples spent more time in a negative state following a negative conversation, specifically when female partners reported high levels of global stress. According to Neff and Karney (2005) this can be indicative of a pattern of interactions between husband and wife. Specifically, their study found husband/wife timing of support was different based on gender. Wives gave better support during times when husbands were distressed, and husbands often responded to wives stress with support coupled with negativity (Neff & Karney).

Perhaps in the current study, while the first conversation discussing times when a partner felt hurt or offended by the other, the wives' issues were not treated with respect. It could be the case that these longer durations of affect would be evident in the positive conversation because they feel that their feelings of stress were not addressed during the negative conversation. In other words, the female partner wants to continue the engaged conversation because they are stressed and this is how they deal with it. Further analyses looking at the content of these recent conversations may help to clarify the underlying mechanisms behind these results.

Another possible explanation for this result could be that females are more comfortable reporting their feelings than men are. Differences in social desirability based on gender come forth in various studies (See Anderson & Manuel, 1994 for example.). In an earlier study looking at sex differences regarding work stress, the empirical evidence reinforces the social desirability hypothesis, as it showed that women were more likely to report higher distress regarding their work situation when compared to men (Jick & Mitz, 1985). The researchers also suggest that some of this gender difference may be based on how males and females are socialized to cope with stress (Jick & Mitz).

Gender differences regarding report of emotion were also identified by Levenson, Carstensen, and Gottman (1994) as well. In their study they found support for the idea that when men feel conflict arousal they withdraw from the conversation while women tend to want to continue to engage, even when the conversation increases in conflict levels (Levenson et al.). This idea is also supported by the previously cited study conducted by Verhofstadt and colleagues (2005) which showed that during demand and withdraw processes, women invest more emotion and attempt to engage in the

conversation while men attempt to avoid such confrontational circumstances. The following findings show support for this model as men may feel more comfortable transitioning to a positive conversation while the women prefer staying with the previous topic which may have remained "unresolved" during the negative conversation.

The literature also shows that there are gender differences regarding the magnitude of negative and positive emotions. In fact, Fujita, Diener, and Sandvick (1991) found support for the proposal that females experience emotion, whether negativity or positivity, more intensely when compared to males. This again ties back into the model by Levenson and colleagues (1994) which suggests females prefer to engage in the negative interaction while men may not prefer it. In his research looking at negative affect during marital interactions, Griffin (1993) found that wives maintained negative affect longer than their partners, providing further support for differences in affect based on gender. Further refining of this research to observe how much time each partner spends in negative states could perhaps identify the mechanisms producing the evidence of gender differences regarding stress and affect.

Implications

Regarding Income and Affect Negativity

One of the underlying purposes of this review was to identify more clearly how income predicts affect during couple interactions using the family stress model. Based on previous research by Krokoff, Gottman, and Roy (1988) it was suggested the higher income levels would predict more positive couple communication through the proposed mechanism of more positive affect and less negative affect (Johnson et al., 2005).

However, no significant relationships were found with the exception of one relationship which was opposite the hypothesized result.

The one significant finding, although unexpected, actually remains supported by the literature based on the Stress Spillover model. For income can indicate more time spent at work which can then indicate more work-based strains spilling over into the family interactions. In fact, Krokoff and colleagues (1988) looked at two separate groups: Families of blue-collar workers and families of white-collar workers. Perhaps work-based stress may then spillover into the negative affect displayed in the couple's communication processes. However, since the majority of couples in this sample were college students, work-related stress may not even be an issue. A future study having a sample with less college students may be helpful in looking at work-related satisfaction/stress levels to help to clarify this one significant finding. Since there were no significant findings supporting the other hypotheses, these results may suggest the next step being to operationalize a further construct regarding financial strain when looking at the relationship between couple income and the various measures of couple affect.

Regarding Gender Differences

The results from the exploratory portion of this study also provide some clarification for the underlying processes and emotions felt during marital conversations. Perhaps as wives' education levels increase, so does their tendency to express emotions. As the results show, this may be more readily apparent when wives' stress levels are higher. In other words, they are able to continue expressing negativity when something is bothering them. Understanding how gender differences regarding affect take place can paint a clearer picture regarding the long-range view of how emotions affect marital

quality over time (Neff & Karney, 2004). In their longitudinal research, Neff and Karney found that the relationship between external stress and perception of marital quality was explained by how each partner processed those perceptions. Since this study found that female levels, but not male levels, of stress significantly predicted, for the couple, longer durations of staying in negative states, perhaps these differences in the patterns of negativity and negative reciprocity, based on gender, can help clinicians and researchers alike. Another point to make regarding the affect data was that it was a dyadic unit of analyses looking at couple visits and duration spent in negativity versus individual visits and duration. Based on the evidence suggesting a difference based on gender, perhaps the next step would be to analyze these variables of affect using individual units of analyses.

The role of a counselor or therapist may not be to define what marital satisfaction is, but to help family members identify and clarify their feelings about their marriage (Rosen-Grandon, Myers, & Hattie, 2004). Clinicians and educators who able to identify how gender moderates the relationship between stress and emotions, during interactions, may find it easier to help family members gain insight. They may begin to recognize how gender differences affect marital communication processes and help patients recognize and address such differences as well as feelings about those differences.

Limitations and Considerations

Since this study used a convenience sample of only 41 couples, the generalizability of this study is limited. Also, 27 of the romantic couples were not married, and this can limit the effects of finances on communication processes experienced. To explain it another way, money issues between couples are not as salient if the couples do not share households, assets, and expenses. Further studies may need to

control for couples who are not married. At the same time, this study provides preliminary evidence for the need to study self-reported affect in relation to couples and their income and partner's global stress. It also provides further support for the value of mapping emotional processes during couple interactions using state space grids.

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APPENDICES

Table 1.

Hypotheses and Variables

	Variable	Definition
Flexibility Hypothesis 1	Mean durations-per-event	Persistence of individual affective experiences on SSG
Flexibility Hypothesis 2	Dispersion	Range of different affective experiences on the SSG
Flexibility Hypothesis 3	Transition-Per-Minute	Number of transitions between affective states on SSG
Negativity Hypothesis 1	Negative Durations	Amount of time spent in specific negative affect state.
Negativity Hypothesis 2	Negative Visits	Number of visits to negative affect state

Table 2.

Ranges, Means, and Standard Deviations of Affect Variables, Couple Income, and Partner Reported Total Stress

Affect Variable	*N*	Min	Max	Mean	*SD*
Mean Durations-Per-Event Pre	41	2.3	59.36	10.07	11.29
Mean Durations-Per-Event Post	41	2	120.27	14.47	19.27
Dispersion Pre	41	.3	.95	.82	.13
Dispersion Post	41	.28	9.68	.93	1.39
Transition-Per-Minute Pre	41	1	26	9.33	5.64
Transition-Per-Minute Post	41	.4	29.6	7.02	4.99
Negative Durations Pre	40	0.04	59.36	33.55	17.83
Negative Durations Post	40	0	121.18	15.84	21.66
Negative Visits Pre	41	1	42	7.17	6.72
Negative Visits Post	41	0	11	3.4	2.79
Couple Income	41	1	5	2.15	1.06
Male Total Stress	41	426	675	530.05	60.48
Female Total Stress	41	412	654	539.44	57.51

Table 3.

Regression Test Results between Income and Affect During the Pre Conversation

		SS	df	Mean Sq.	*F*	SS	df
Income and Dispersion	Regression	.000	1	.000	.008	.000	1
	Residual	.730	40	.018		.730	40
	Total	.730	41			.730	41
Income and Transitions per minute Pre	Regression	30.178	1	30.178	.948	30.178	1
	Residual	1272.675	40	31.817		1272.675	40
	Total	1302.853	41			1302.853	41
Income & Mean Duration Pre	Regression	20.822	1	20.822	.160	20.822	1
	Residual	5208.100	40	130.202		5208.100	40
	Total	5228.922	41			5228.922	41
Income & Number of Visits Pre	Regression	10.170	1	10.170	.221	10.170	1
	Residual	1841.664	40	46.042		1841.664	40
	Total	1851.833	41			1851.833	41
Income & Negative Durations Pre	Regression	55.408	1	55.408	.170	55.408	1
	Residual	12655.812	39	324.508		12655.812	39
	Total	12711.220	40			12711.220	40

Table 4.

Regression Test Results between Income and Affect During the Post Conversation

		SS	df	Mean Sq.	*F*	SS	df
Income and	Regression	.078	1	.078	.039	.078	1
Dispersion	Residual	79.403	40	1.985		79.403	40
	Total	79.481	41			79.481	41
Income and	Regression	.543	1	.543	.021	.543	1
Transitions per	Residual	1021.382	40	25.535		1021.382	40
minute	Total	1021.925	41			1021.925	41
Income & Mean	Regression	44.847	1	44.847	.118	44.847	1
Duration	Residual	15181.961	40	379.549		15181.961	40
	Total	15226.808	41			15226.808	41
Income & Number	Regression	30.485	1	30.485	4.239*	30.485	1
of Visits	Residual	287.634	40	7.191		287.634	40
	Total	318.119	41			318.119	41
Income &	Regression	175.266	1	175.266	.368	175.266	1
Negative	Residual	18587.090	39			18587.090	39
Durations	Total	18762.356	40			18762.356	40

Which of the following comes closest to your yearly, household income?

a. *Less than $15,000 per year*
b. *More than $15,000, but less than $35,000*
c. *More than $35,000, but less than $55,000*
d. *More than $55,000, but less than $75,000*
e. *More than $75,000*
f. *Don't know.*

Figure 1. Actual Survey Question (Roberts & Gardner, 2006) Used with permission.

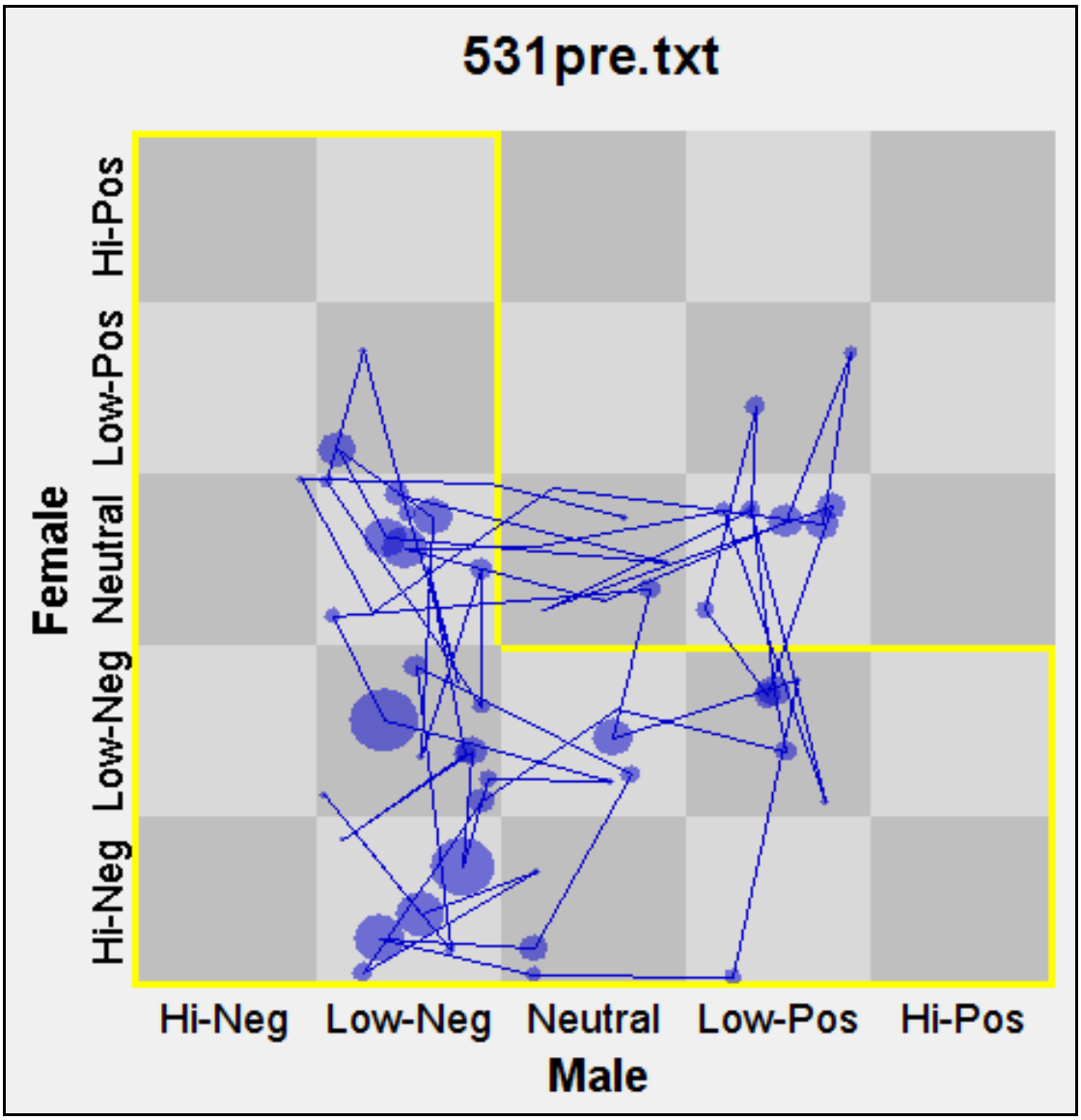

Figure 2. State Space Grid Measuring Visits Made to the Negative Region (Outlined in Yellow) During a Negative Conversation

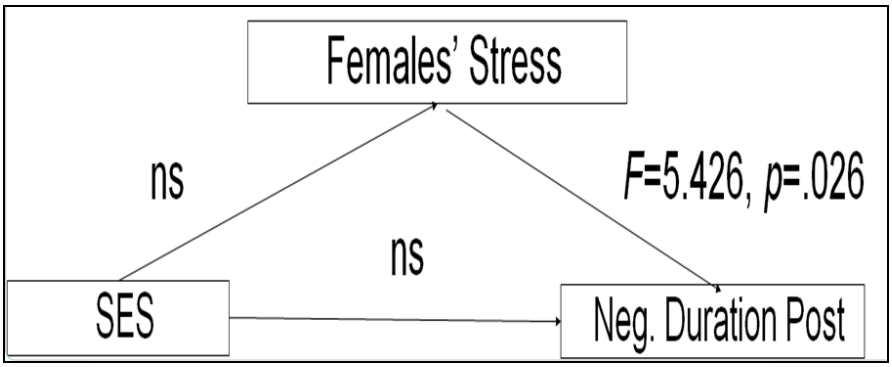

Figure 3. Relationship between female stress and negative duration during the positive conversation.

VITA

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Candidate for the Degree of

Master of Science

Thesis: EXPLORING FINANCES, EMOTIONS, AND COUPLE RELATIONS USING THE FAMILY STRESS MODEL AND STRESS SPILOVER MODEL

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Major Field: Human Development and Family Science

Scope and Method of Study: This study was to identify if an association exists between couple SES and affective experience while communicating, and it also was to identify evidence supporting partner global stress as a partial mediator of this relationship. Participants were 41 couples in a married or committed relationship. Each couple had a positive and negative conversation. A continuous-response measure was used to obtain self-report data on couple affect.

Findings and Conclusions: The results showed no significant relationship existed between couple income and couple affect, except for the relationship in which couple SES significantly and positively correlated with couple's visit to negativity following a negative conversation. Also the more global stress felt by a wife correlated with longer durations the couple spent in negative states following a negative conversation. The difference based on gender found suggests the need to look at gender differences in stress and how they predict couple affect during interactions.

ADVISER'S APPROVAL: Dr. Brandt C. Gardner